DETAILED ACTION

Remarks

1.   Applicant's amendment dated 7/15/2005 is entered.

2.   Applicant canceling claims 1-11 is acknowledged.

Priority

3.   Acknowledgment is made of applicant's claim for foreign priority filed in Japan on

1242003 under 35 U.S.C. 119(a)-(d).

4.   It is noted that this application appears to claim subject matter disclosed in prior

International Application PCT/JP03/15944, filed 12/12/2003. A reference to the prior

application must be inserted as the first sentence(s) of the specification of this

application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on

the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See

37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, 121, or 365(c), the reference

must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all

nonprovisional applications. If the application is a utility or plant application filed under

35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior

application must be submitted during the pendency of the application and within the

later of four months from the actual filing date of the application or sixteen months from

the filing date of the prior application. If the application is a utility or plant application

which entered the national stage from an international application filed on or after

November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must

be submitted during the pendency of the application and within the later of four months

from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or

sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii)

and (a)(5)(ii). This time period is not extendable and a failure to submit the reference

required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is

considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e),

120, 121 and 365(c). A benefit claim filed after the required time period may be

accepted if it is accompanied by a grantable petition to accept an unintentionally

delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must

be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR

1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge

under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the

claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was

unintentional. The Director may require additional information where there is a question

whether the delay was unintentional. The petition should be addressed to: Mail Stop

Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period

set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an

application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was

submitted in an oath or declaration or the application transmittal letter), and the

information concerning the benefit claim was recognized by the Office as shown by its

inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge

under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference

in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the

specification or an ADS. See MPEP § 201.11.

Information Disclosure Statement

5.   The information disclosure statement (IDS) submitted on 7/18/2005, 9/21/2005,

11/16/2006, and 7/9/2007 have been considered and made of record by the examiner.

Claim Rejections - 35 USC § 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

6.   Claim 13 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

Claims 12 recites: "said reported value reported from each of a plurality of

communication apparatuses" in lines 2-4, which is in contradiction with "reported value

being reported from a plurality of communication apparatuses" recited in claim 13, line

4, which makes claim 13 vague and unclear.

/Nader Bolourchi/
Examiner, Art Unit 2611
5/1/2008

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art
> are such that the subject matter as a whole would have been obvious at the time the invention was made to
> a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

7.   In considering patentability of the claims under 35 U.S.C. 103(a), the examiner

presumes that the subject matter of the various claims was commonly owned at the

time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and

invention dates of each claim that was not commonly owned at the time a later invention

was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and

potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8.   Claims 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

TR (3GPP, Draft TR 25.890v1.2.0, R4-021538 "HSDPA, UE Radio Transmission and

Reception", RAN WG4 meeting #25, Secaucus, NJ, USA, November 2002) in view of

Qualcomm (Qualcomm, R4-021533 "VRC Test Approach", RAN WG4 meeting #25,

Secaucus, NJ, USA, November 2002).

Regarding claim 12, TR discloses a testing apparatus (section "7.2. Test

Configuration" in page 10: Fig. 7.1) that tests of a reported value on channel quality

("CQI report" in page 10: lines 17-22), said reported value being reported from a

communication apparatus ("received CQI from the UE" in page 11: 5-12), said testing apparatus comprising: a setting section that sets based on said reported value a transmission scheme to be used for transmission to said communication apparatus ("the Modulation and Coding Controller (MCC) function embedded in the Node-B" in page 6: lines 14-17); a transmitting section that transmits a packet data to said communication apparatus using said transmission scheme set by said setting section ("the Node-B" in page 6: lines 14-17) ; and a determination section ("the Node-B emulator/MCC" in page 11: lines 5-12; "the assessment of the UE CQI behavior" in page 11: lines 13-18) that determines **requirement** of said reported value ("required ... packet error rate" in page 11: lines 31-33) based on a reception error rate of said packet data transmitted ("packet error rate" in page 11: lines 19-38) by said transmitting section. However, TR does not explicitly disclose that the test is an accuracy test and aforesaid **requirement** is the accuracy.

Qualcomm explicitly disclose that the determination section determines accuracy of said reported value ("verifying CQI reporting accuracy" in page 1: lines 7-13). Therefore, It would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teaching of TR and Qualcomm for the purpose of "verify whether a UE is generating CQI reports that are in line with" modified "definition of CQI" as suggested by Qualcomm (page 1: lines 11-13).

Regarding claim 13, TR and Qualcomm disclose, as stated in rejection of claim 1

above. TR also disclose that said setting section sets based on said reported value

reported from each of a plurality of communication apparatuses ("received CQI from the

UE" in page 11: 5-12) said transmission scheme for every communication apparatus,

said transmission scheme being used for transmission to each communication

apparatus ("the Modulation and Coding Controller (MCC) function embedded in the

Node-B" in page 6: lines 14-17), said transmitting section transmits said packet data to

each communication apparatus using said transmission scheme set for every

communication apparatus ("a single packet" in page 11: lines 5-12); , and said

determination section determines said accuracy of said reported value based on said

reception error rate of said packet data transmitted to each communication apparatus

("packet error rate" in page 11: lines 19-38).

Regarding claim 14, TR and Qualcomm disclose, as stated in rejection of claim 1

above. TR also disclose that said setting section sets a fixed transmission scheme

based on said reported value(each row of table 8.2, which indicates a fix transmission

for a given CQI report value) .

Regarding claim 15, TR and Qualcomm disclose, as stated in rejection of claim 1

above. Qualcomm also disclose that said setting section sets said transmission scheme

in accordance with statistics of said reported value ("Received HS-DSCH data is

assigned with a transport format which corresponds to the **statistical** median of all

reported CQI from an UE under static channel condition" In page 1: lines 20-23).

Therefore, It would have been obvious to one of ordinary skill in the art, at the time the

invention was made to combine the teaching of TR and Qualcomm for the purpose of

"verify whether a UE is generating CQI reports that are in line with" modified "definition

of CQI" as suggested by Qualcomm (page 1: lines 11-13).

Regarding claim 16, TR and Qualcomm disclose, as stated in rejection of claim 1

above. Qualcomm also disclose that said setting section sets said transmission scheme

based on a median value of said reported value ("Received HS-DSCH data is assigned

with a transport format which corresponds to the statistical **median** of all reported CQI

from an UE under static channel condition" In page 1: lines 20-23). Therefore, It would

have been obvious to one of ordinary skill in the art, at the time the invention was made

to combine the teaching of TR and Qualcomm for the purpose of "verify whether a UE is

generating CQI reports that are in line with" modified "definition of CQI" as suggested by

Qualcomm (page 1: lines 11-13).

Regarding claim 17, TR and Qualcomm disclose, as stated in rejection of claim 1

above. TR also discloses that said transmitting section transmits said packet data to

said communication apparatus using a predetermined channel ("the associated HS-

DSCH" in page 11: lines 5-12).

Regarding claim 18, TR and Qualcomm disclose, as stated in rejection of claim 1
above. TR also discloses that said transmitting section transmits a second signal to said
communication apparatus ("the associated HS-DSCH" in page 11: lines 5-12), said
second signal being different from a first signal based on which said reported value is
generated ("the HS-DPCCH sub-frame transporting the CQI report" in page 11: lines 5-
12).

Regarding claim 19, TR and Qualcomm disclose, as stated in rejection of claim 1
above. Qualcomm also disclose that a calculation section ("Node B emulator" in page 3
lines 5-7) that calculates one or more reception error rates of said packet data
transmitted by said transmitting section (" $PER(k)$ is the nominal packet error rate for CQI
k given that CQI k was reported" in page 3: lines 1-18), said reception error rates
corresponding to one or more values indicative of channel quality (" $PER(k)$ ... for CQI k"
in page 3: line 17), and wherein: said determination section determines said accuracy of
said reported value based on a reception error rate calculated ("verifying CQI reporting
accuracy" in page 1: lines 7-13) corresponding to a specific value of said values
indicative of channel quality ("given that CQI k was reported" in page 3: line 17).

Regarding claim 20, TR and Qualcomm disclose, as stated in rejection of claim 1
above. Qualcomm also disclose that a calculation section ("Node B emulator" in page 3
lines 5-7) that calculates reception error rates of said packet data transmitted by said
transmitting section (" $PER(k)$ is the nominal packet error rate for CQI k given that CQI k

/Nader Bolourchi/
Examiner, Art Unit 2611
5/1/2008

was reported" in page 3: lines 1-18), said reception error rates corresponding to a

plurality of values indicative of channel quality ("$\sum_{k} \text{Prob(reportedCQI}$" in page 3: lines 1-

18), respectively, and wherein: said determination section determines said accuracy of

said reported value based on reception error rates calculated ("verifying CQI reporting

accuracy" in page 1: lines 7-13) corresponding to a median value of said plurality of

values Received HS-DSCH data is assigned with a transport format which corresponds

to the statistical **median** of all reported CQI from an UE under static channel condition"

In page 1: lines 20-23) and to a value different from said median value by a

predetermined level ("the transport block error probability would not exceed 0.1" in page

1: lines 16-19), out of said plurality of values.

Regarding claim 21, TR and Qualcomm disclose, as stated in rejection of claim 1

above. TR also discloses communication terminal testing apparatus (Fig. 7.1)

comprising: a pass/fail decision section ("ACK/NACK transfer" in section "6.2. Test

configuration" page 10: lines 14-20) that decides to pass or fail a communication under

test ("If the maximum number of transmission attempts (specified in Annex A) is

exceeded without reception of an ACK on the error-free uplink HS-DPCCH, the entire

content of the information bit payload is assumed to have been lost" in page 8: lines 7-

13), based on a test result by the accuracy testing apparatus (Fig. 7.1).

Regarding claim 22, TR discloses a testing method (section "7.2. Test Configuration"

in page 10: Fig. 7.1) that tests a reported value on channel quality ("CQI report" in page

10: lines 17-22), said reported value being reported from a communication apparatus ("received CQI from the UE" in page 11: 5-12), said testing method comprising: a setting step of setting based on said reported value a transmission scheme to be used for transmission to said communication apparatus ("the Modulation and Coding Controller (MCC) function embedded in the Node-B" in page 6: lines 14-17; a transmitting step of transmitting a packet data to said communication apparatus using said transmission scheme set in said setting step ("the Node-B" in page 6: lines 14-17); and a determination step ("the Node-B emulator/MCC" in page 11: lines 5-12; "the assessment of the UE CQI behavior" in page 11: lines 13-18) of determining **requirement** of said reported value ("required … packet error rate" in page 11: lines 31-33)based on a reception error rate of said packet data transmitted in said transmitting step ("packet error rate" in page 11: lines 19-38) by said transmitting section. However, TR does not explicitly disclose that the test is an accuracy test and aforesaid **requirement** is the accuracy.

Qualcomm explicitly disclose that the determination section determines accuracy of said reported value ("verifying CQI reporting accuracy" in page 1: lines 7-13). Therefore, It would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teaching of TR and Qualcomm for the purpose of "verify whether a UE is generating CQI reports that are in line with" modified "definition of CQI" as suggested by Qualcomm (page 1: lines 11-13).

Remarks

9.   No claim is allowed.

Conclusion

10.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure:

[1]   3GPP, R4-021360, "LS on the definition of CQI", RAN WG4 meeting #24,

Helsinki, Finland, August 2002.

[2]   3GPP, R4-021603, "Response to LS on the definition of CQI", RAN WG4

meeting #25, Secaucus, NJ, USA, November 2002.

[3]   Ericsson, R4-021453 "Simulation results for HSDPA (Variable Reference

Channel)", RAN WG4 meeting #25, Secaucus, NJ, USA, November 2002

[4]   Motorola, R4-021535 "Further Results for HSDPA Variable Reference

Channels", RAN WG4 meeting #25, Secaucus, NJ, USA, November 2002

[5]   Panasonic, R4-021578 "Simulation Results of Variable Reference Channel",

RAN WG4 meeting #25, Secaucus, NJ, USA, November 2002

[6]   Sony, R4-021591 "Simulation results for HSDPA variable reference

channels", RAN WG4 meeting #25, Secaucus, NJ, USA, November 2002

[7]   Qualcomm, R4-021532 "VRC Simulation Results", RAN WG4 meeting #25,

Secaucus, NJ, USA, November 2002.

Contact Information

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to NADER BOLOURCHI whose telephone number is (571)272-8064. The examiner can normally be reached on M-F.

12.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David. C. Payne can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

13.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/David C. Payne/

Supervisory Patent Examiner, Art Unit 2611